

ABSTRACT

The present invention provides solid supports (e.g., glass) and polymer hydrogels (particularly polymer hydrogel arrays present on a solid support) comprising one or more reactive sites for the attachment of biomolecules, as well as
5 biomolecules comprising one or more reactive sites for attachment to solid supports and polymer hydrogels. The invention further provides novel compositions and methods for the preparation of biomolecules, solid supports, and polymer hydrogels comprising reactive sites. The invention also provides for preparation of crosslinked solid supports, polymer hydrogels, and hydrogel arrays, wherein one or more
10 biomolecules is attached by means of the reactive sites in a photocycloaddition reaction. Advantageously, according to the invention, crosslinking of the hydrogel and attachment of biomolecules can be done in a single step.

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